GENERAL NOTES

1. A permit shall be obtained and all fees and deposits for construction inspection shall be paid to the Department of Public Works at the Permit Counter, 900 South Fremont Avenue, 8th Floor, prior to starting work under this contract. Also, all other required permits, such as Road Excavation Permits, must be obtained prior to starting work.
2. The contractor shall contact the District Office listed on the "Application for Storm Drain Construction Inspection Form I" to arrange for an acceptable construction start date.
3. Approval of this plan by the County of Los Angeles does not constitute a representation to the accuracy of the location, or the existence or nonexistence of any underground utility, pipe or structure within the limits of this project. This note applies to all sheets.
4. All work shall be in accordance with the latest adopted edition of the "Standard Specifications for Public Works Construction," including supplements, and shall be prosecuted only in the presence of the Director of Public Works.
5. The contractor's attention is directed to Section 7-10.4.1 of the Standard Specifications for Public Works Construction in regard to safety orders, and shall conform to the "Minimum Public Safety Requirements" as shown on Los Angeles County Department of Public Works Standard Plan 6008.
6. Elevations are in feet above U.S.C. & G.S. Mean Sea Level Datum of 1929, unless otherwise indicated.
7. No concrete shall be placed until the forms and reinforcing steel have been placed, inspected and approved.
8. All structural concrete shall be Portland cement concrete with an ultimate 28 day compressive strength of 4000 psi unless otherwise noted.
9. Transverse reinforcement and transverse joints shall be placed at right angles (or radial) to the conduit centerline except as otherwise shown on the drawings.
10. All steel adjacent to face of concrete shall have a 2-1/2-inch clearance unless otherwise specified.
11. Reinforcement shall be deformed bars of intermediate grade steel, per ASTM A-615-Grade 60.
12. All bar bends and hooks shall conform to the American Concrete Institute "Manual of Standard practice."
13. Dimensions from face of concrete to steel are to centerline of steel unless otherwise noted.
14. All steel reinforcement splices shall comply with latest ACI code.
15. All construction joints in the footing or slabs and walls shall be in the same plane. No staggering of joints will be permitted.
16. All exposed edges shall be finished with a 3/4-inch chamfer.
17. Unless otherwise shown, concrete dimensions shall be measured vertically or horizontally and parallel or at right angles (or radial) to the center line of construction.
18. Concrete backfill is required when the pipe has less than one foot of cover. The concrete backfill shall consist of 1:3:5 mix, Portland cement concrete poured from wall to wall of trench and from bottom of trench to a minimum of 4 inches over the top of the pipe.
19. All pipes shall be placed in trench in natural ground and/or compacted fill. The ground level before the trenching shall be at least 3 feet above the top of the pipe elevation, or at finish surface elevation, whichever is less.
20. All backfill and fills outside of street right of way shall be compacted to a minimum of 90 percent of maximum dry density as determined by ASTM Soil Test D 1557-91 Method "D" unless otherwise specified. This shall be certified by a soil engineer. This certification shall be submitted to the City Engineer prior to acceptance of the work by the County.
21. All backfill and fills within street rights of way shall be compacted in accordance with City requirements unless otherwise noted and inspected by the City. The soil compaction shall be certified by a geotechnical engineer.
22. Pipe bedding shall be:

    According to Standard Plan No. 3080, Case III, except bell and spigot pipe which shall be Case II bedding, unless otherwise shown. "W" values shall be as specified on Standard Plan No. 3080 for Case III bedding, Notes 3 (a), 3 (b), and 3 (c). If the "W" value at the tip of the pipe is exceeded, the bedding shall be modified, and/or pipe of additional strength shall be provided. The proposed modification shall be approved by the Department.
23. Pipe shall be embedded 5 inches into all structures including inlet and head walls, unless otherwise specified.
24. "Unless otherwise specified in the profile on these plans, the pipe shall be manufactured with a minimum concrete cover over the steel in the invert of 0.75 inches for RCP up to 96 inches in diameter and 1.25 inches for pipe greater than 96 inches in diameter."
25. All catch basins within the dedicated street right of way shall be constructed per Standard Plans for Public Works Construction.
26. The contractor shall provide to the satisfaction of the Director of Public Works a drainage system for contributory flows to be operable at all times until this storm drain system is accepted for maintenance . The design of the drainage system must be prepared under the direction of a Civil Engineer.
27. All references on this plan to the County Engineer, Road Department, or Flood Control District shall apply to the appropriate elements of the Department of Public Works.
28. Existing utilities shall be maintained in place by the contractor, unless otherwise noted.
29. Where the utilities are indicated on the Drawings to be supported, said supports shall be in accordance with Standard Plans for Public Works Construction No. 224 unless otherwise indicated.
30. All openings resulting from the cutting or partial removal of existing culverts, pipes or similar structures shall be sealed with 8 inches of Brick and Mortar or 6 inches of concrete, unless otherwise shown.
31. Manholes shall use the Standard Plans for Public Works Construction No 630 for the "Frame and Cover" and No. 635 for the "Standard Drop Step."
32. This storm drain will not be field accepted until the streets have been paved, manholes brought to grade, and the system cleaned to the satisfaction of the Director of Public Works.
33. A NPDES Permit from the Regional Water Quality Control Board is required before any discharge of non-storm water into the storm drain is allowed.
34. The latest revised standard plan or drawing shall be used unless otherwise noted.

STORMWATER POLLUTION CONTROL REQUIREMENTS FOR STORM DRAIN CONSTRUCTION

A. NOTES:

1. Eroded sediments and other pollutants must be retained on site and may not be transported from the site via sheetflow, swales, area drains, natural drainage courses or wind.
2. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.
3. Fuels, oils, solvents and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
4. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on site until they can be disposed of as solid waste.
5. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
6. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
7. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.

B. The following BMPs as outlined in, but not limited to, the Best Management Practice Handbook, California Stormwater Quality Task Force, Sacramento, California, 1993, or the latest revised edition,may apply during construction (additional measures may be required if deemed appropriate by County):

CA001 – DEWATERING OPERATIONS
CA002 – PAVING OPERATIONS
CA003 – STRUCTURE CONSTRUCTION AND PAINTING
CA010 – MATERIAL DELIVERY AND STORAGE
CA012 – SPILL PREVENTION AND CONTROL
CA020 – SOLID WASTE MANAGEMENT
CA021 – HAZARDOUS WASTE MANAGEMENT
CA023 – CONCRETE WASTE MANAGEMENT
CA030 – VEHICLE AND EQUIPMENT CLEANING
CA031 – VEHICLE AND EQUIPMENT FUELING
CA032 – VEHICLE AND EQUIPMENT MAINTENANCE
CA040 – EMPLOYEE/SUBCONTRACTOR TRAINING
ESC01 – SCHEDULING
ESC02 – PRESERVATION OF EXISTING VEGETATION
ESC10 – SEEDING AND PLANTING
ESC11 – MULCHING
ESC20 – GEOTEXTILES AND MATS
ESC21 – DUST CONTROLS
ESC22 – TEMPORARY STREAM CROSSING
ESC23 – CONSTRUCTION ROAD STABILIZATION
ESC24 – STABILIZED CONSTRUCTION ENTRANCE
ESC30 – EARTH DIKE
ESC31 – TEMPORARY DRAINS AND SWALES
ESC32 – SLOPE DRAIN
ESC40 – OUTLET PROTECTION
ESC41 – CHECK DAMS
ESC50 – SILT FENCE
ESC51 – STRAW BALE BARRIERS
ESC52 – SAND BAG BARRIER
ESC53 – BRUSH OR ROCK FILTER
ESC54 – STORM DRAIN INLET PROTECTION

HYDRAULIC ELEMENTS

LINE	STATION	Q (50 YR) C.F.S.	CONDUIT SIZE	V_{MAX} IN F.P.S.	DEPTH OF FLOW-FT.
"A"	10+00.00 TO 10+10.00	576.0	12'W X 5'H RCB	24.3 *	PART FULL
"A"	10+10.00 TO 12+07.00	561.0	12'W X 5'H RCB	24.6 *	PART FULL
"A"	12+27.00 TO 12+48.65	561.0	12'W X 8'H RCB	24.6 *	PART FULL
"B"	10+00.00 TO 12+22.53	27.2	48" RCP	13.6	PART FULL
"A-1"	1+00.00 TO 1+37.00	15.0	24" RCP	7.5	PART FULL
"A-1"	1+43.00 TO 2+32.42	15.0	24" RCP	7.6	PART FULL
"A-1"	1+00.00 TO 1+64.00	7.5	24" RCP	2.7	PART FULL

* MIN. CONCRETE COVER OVER STEEL IN THE INV.=3.5"
⊛ INDICATES FULL FLOW.

PF512984

NO.	REVISIONS		APPROVED BY	DATE

REVIEWED LAND DEVELOPMENT DIVISION
BY _____ SUBDIVISION PLAN CHECKING SECTION 12/2/02 DATE

REGISTERED PROFESSIONAL ENGINEER EDWARD A. WACHTEL C 25119 EXP 12-31-05 CIVIL STATE OF CALIFORNIA

_____ PROJECT ENGINEER 10/31/02 DATE

STORM DRAIN PLANS IN D.S. NO. 508 P.D. NO. 2530

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

PREPARED BY:
CROSBY MEAD BENTON & ASSOCIATES
Engineers • Planners • Surveyors
6345 Balboa Blvd. Suite 140
Encino, California 91316
(818) 343-5384

DWG

SHEET 2 OF 12

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